

Welcome to the LAR-IAC 3 Status Meeting

January 27, 2010



LOS ANGELES REGION
LAR|AC
imagery acquisition consortium



Agenda

- **Welcome & Introduction – LA County**
- **LAR-IAC3 Status Updates**
 - **LA County**
 - Background
 - Status
 - Participant information
 - **Pictometry (Oblique imagery)**
 - **Sanborn (Ortho imagery)**
 - **Dewberry (Independent QA/QC)**
- **Discussion / Other Items / Closing – LA County**

What is LAR-IAC?

- Los Angeles Regional Imagery Acquisition Consortium (LAR-IAC)

“LAR-IAC is multi-jurisdictional purchasing arrangement that enables participating local governments and agencies to benefit from combined economies of scale to efficiently and cost-effectively acquire high definition aerial data.”

- Established in 2003 by LA County DRP and CIO.

LAR-IAC Team Structure

LA County

Mark Greninger, CIO
Project Director

Nick Franchino, DRP
Outreach Manager

Project Vendors

Pictometry
Sanborn
Dewberry

Participants

Cities
Departments
Agencies

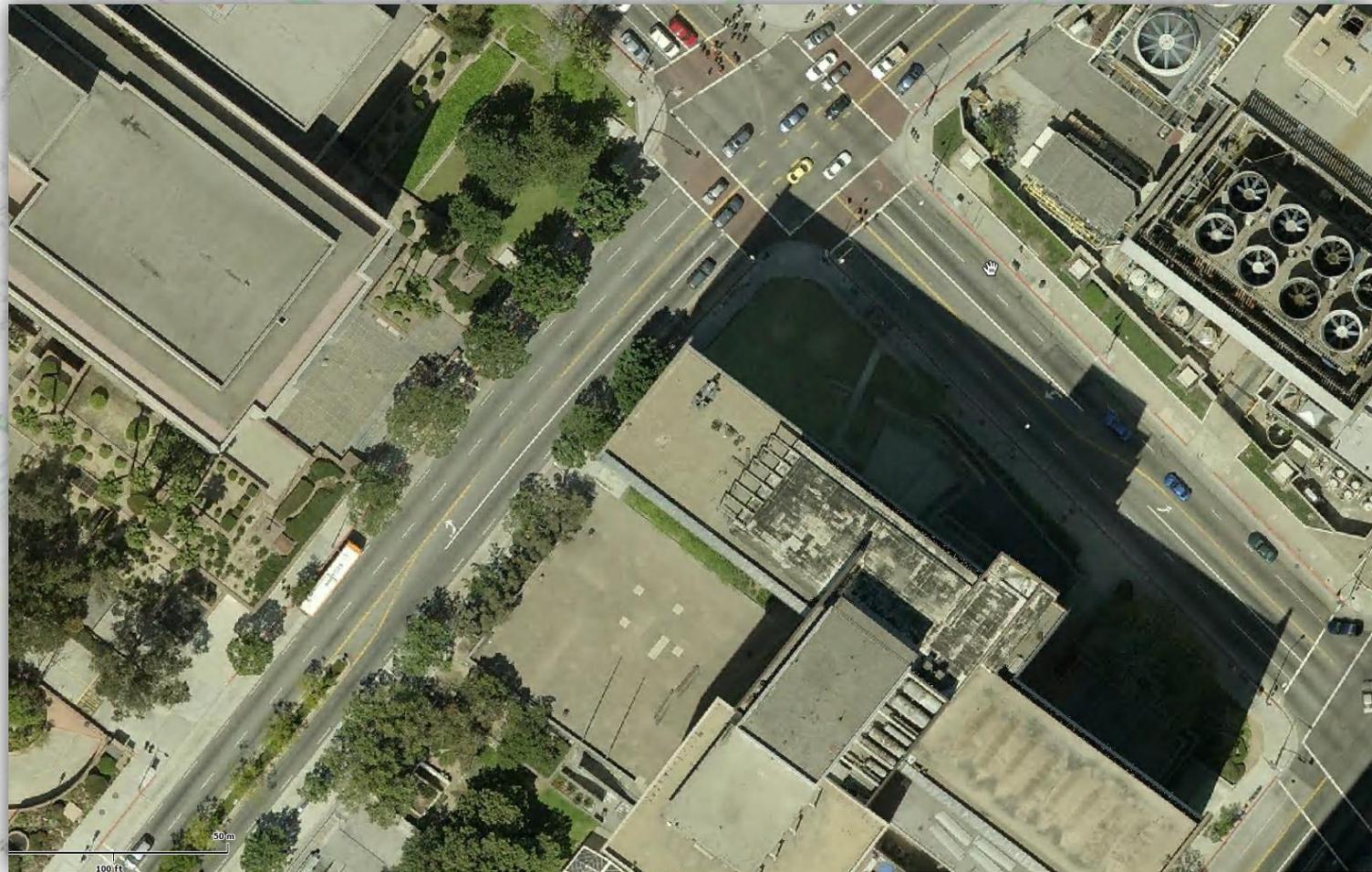
Technical Advisory Group
Composed of LAR-IAC
Participants

LAR-IAC is data

- LAR-IAC provides geographic data that forms the foundation of geo-spatial decision making and analysis.
- All Digital Aerial data
 - Orthogonal imagery
 - Oblique imagery
 - Elevation data
 - Building Outlines

Orthogonal Imagery

- Also known as “Satellite View”



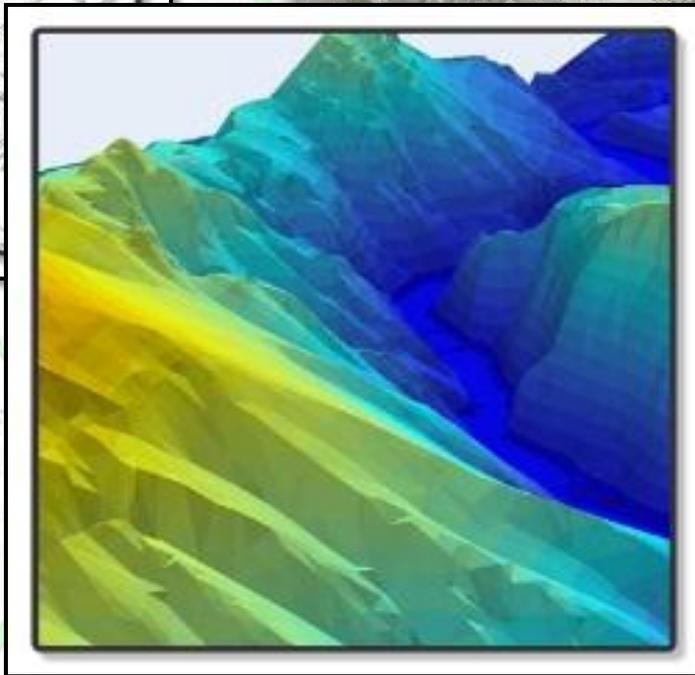
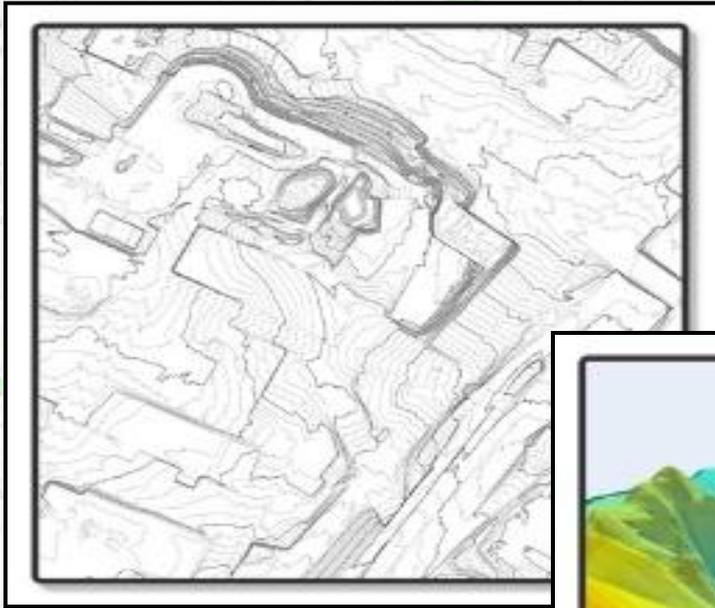
Oblique Imagery

- Also known as “birds eye”

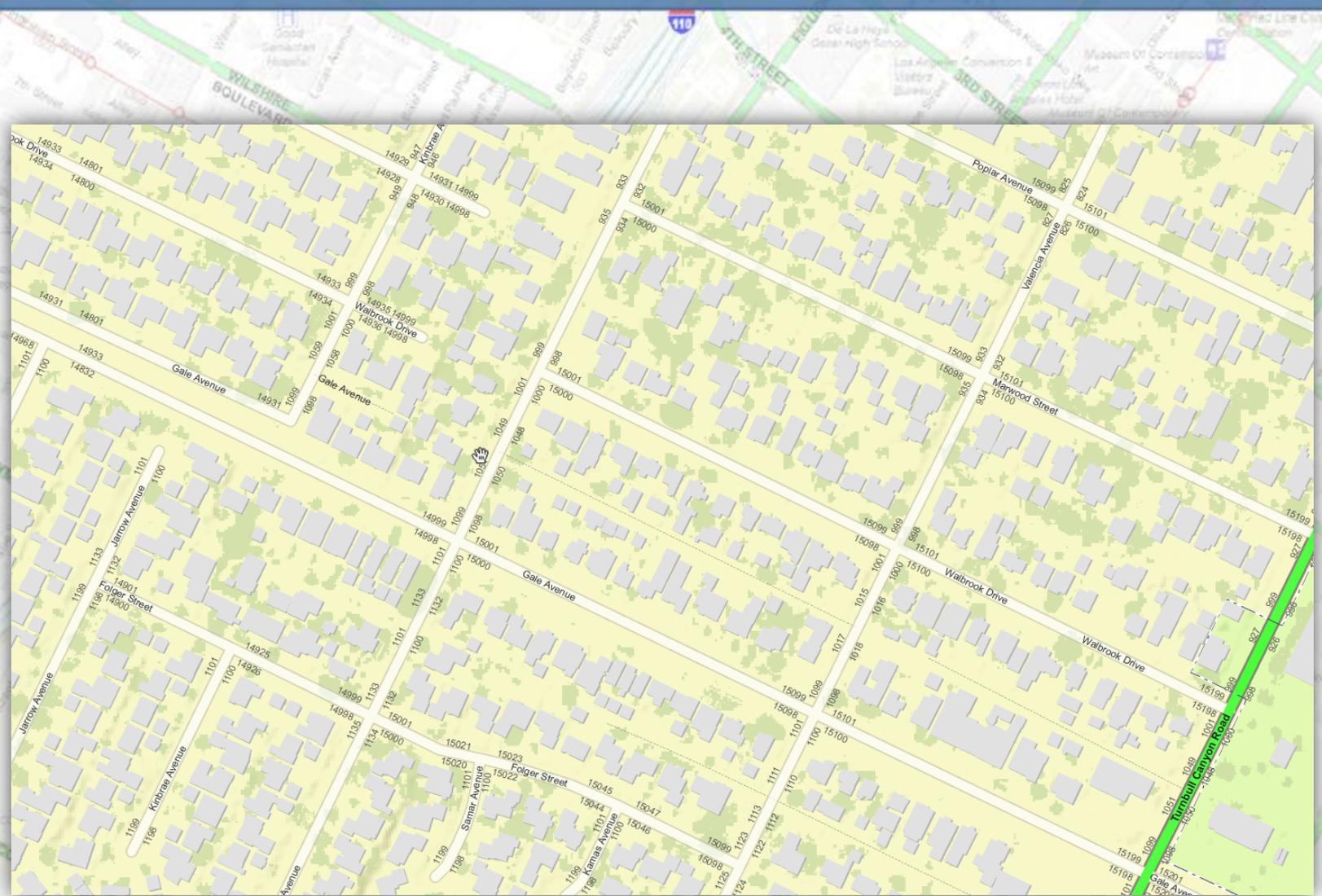


Elevation Data

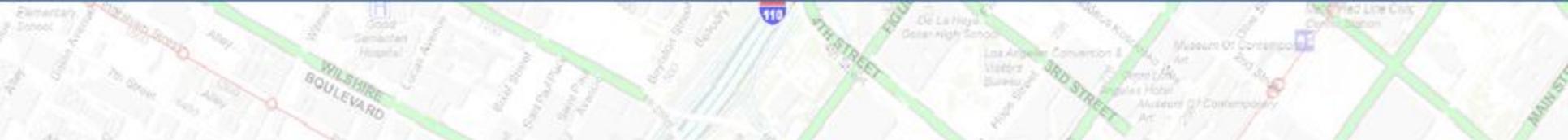
- Contours, buildings, surfaces



Building Outlines



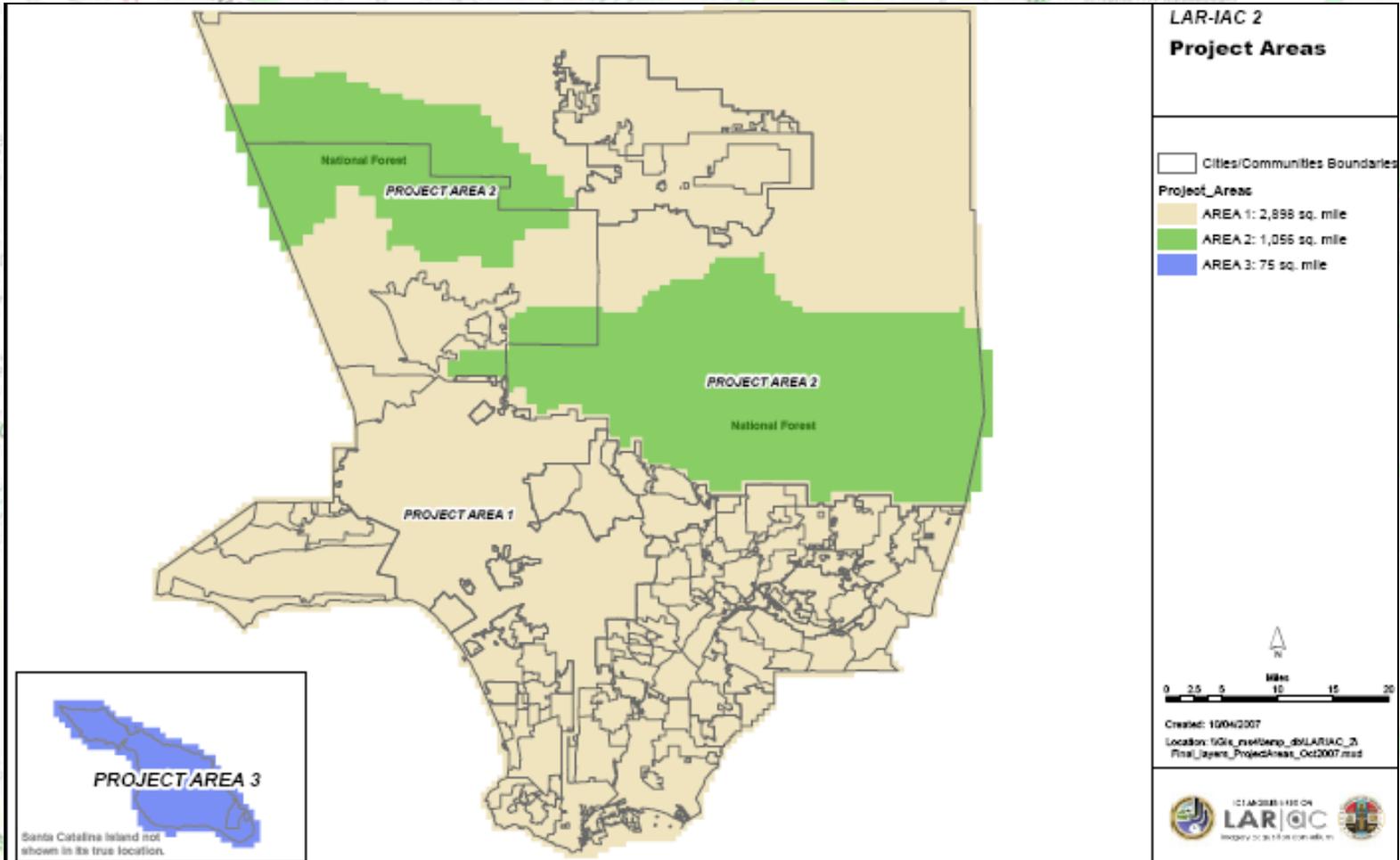
LAR-IAC Flights



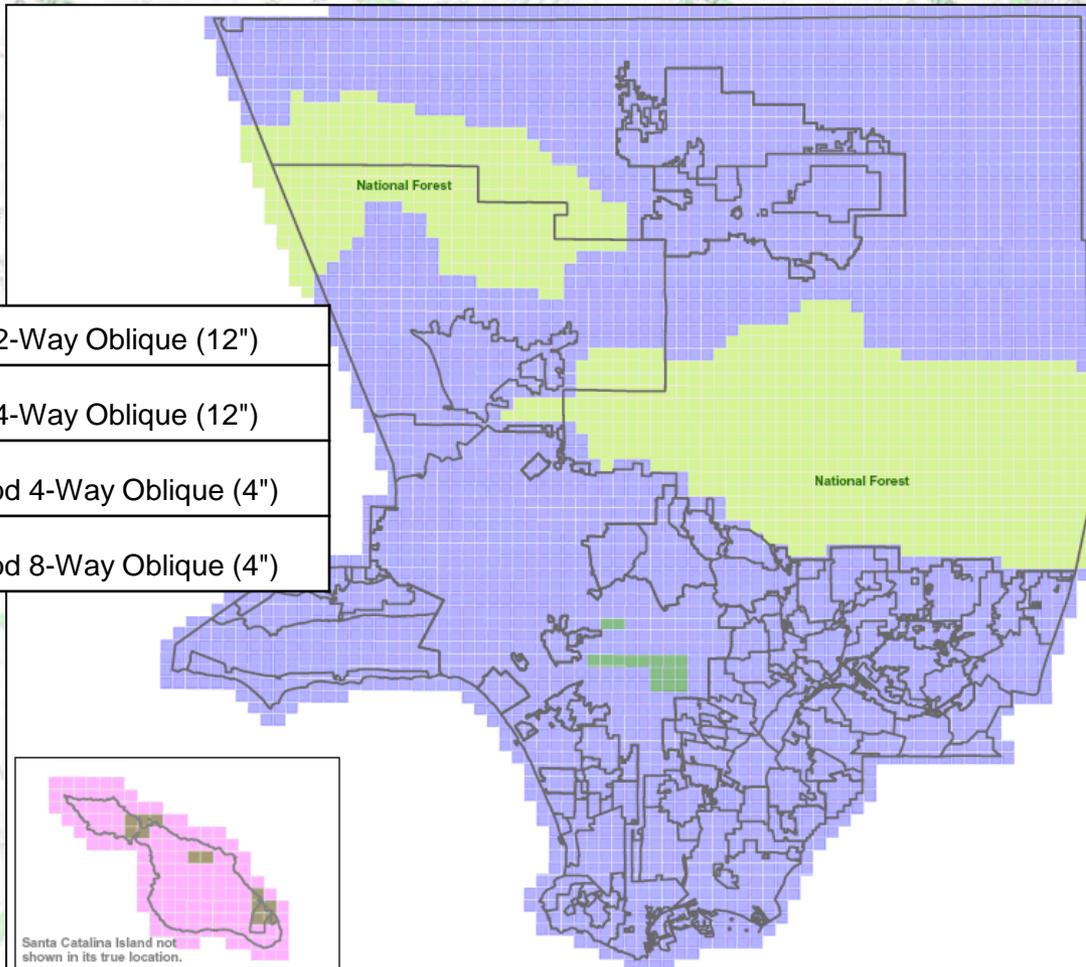
Product	LAR-IAC 1 (2006)	LAR-IAC 2 (2008)	LAR-IAC 3 (2011)
Orthophoto	Yes	Yes	Yes
Pictometry oblique imagery	Yes	Yes	Yes
Elevation Data: Digital Surface Model Digital Terrain Model Digital Elevation Model Contours (2' interval)	Yes	Spot Updates	Spot Updates
Building Outlines	No	Yes	No
Total Cost	\$5.8 million	\$4.5 million	~\$3 million



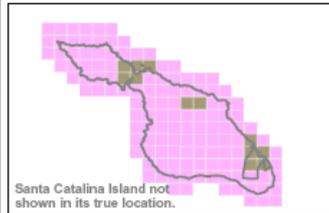
Project Areas - Ortho Imagery



Project Areas – Oblique Imagery



4276	Community 2-Way Oblique (12")
139	Community 4-Way Oblique (12")
3309	Neighborhood 4-Way Oblique (4")
16	Neighborhood 8-Way Oblique (4")



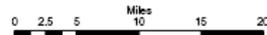
LAR-IAC 2 Pictometry Grid (Proposed)

□ Cities/Communities Boundaries

Pictometry Proposed Grid

- C3
- C3,N5
- C3,N8
- C5
- C5,N5

NOTE: IMAGERY COLLECTION SHOULD EXTEND TO APPROXIMATELY 1,200 FT. BEYOND COUNTY BOUNDARY. THERE WILL BE PARTIAL SECTORS ON THE FRINGES.



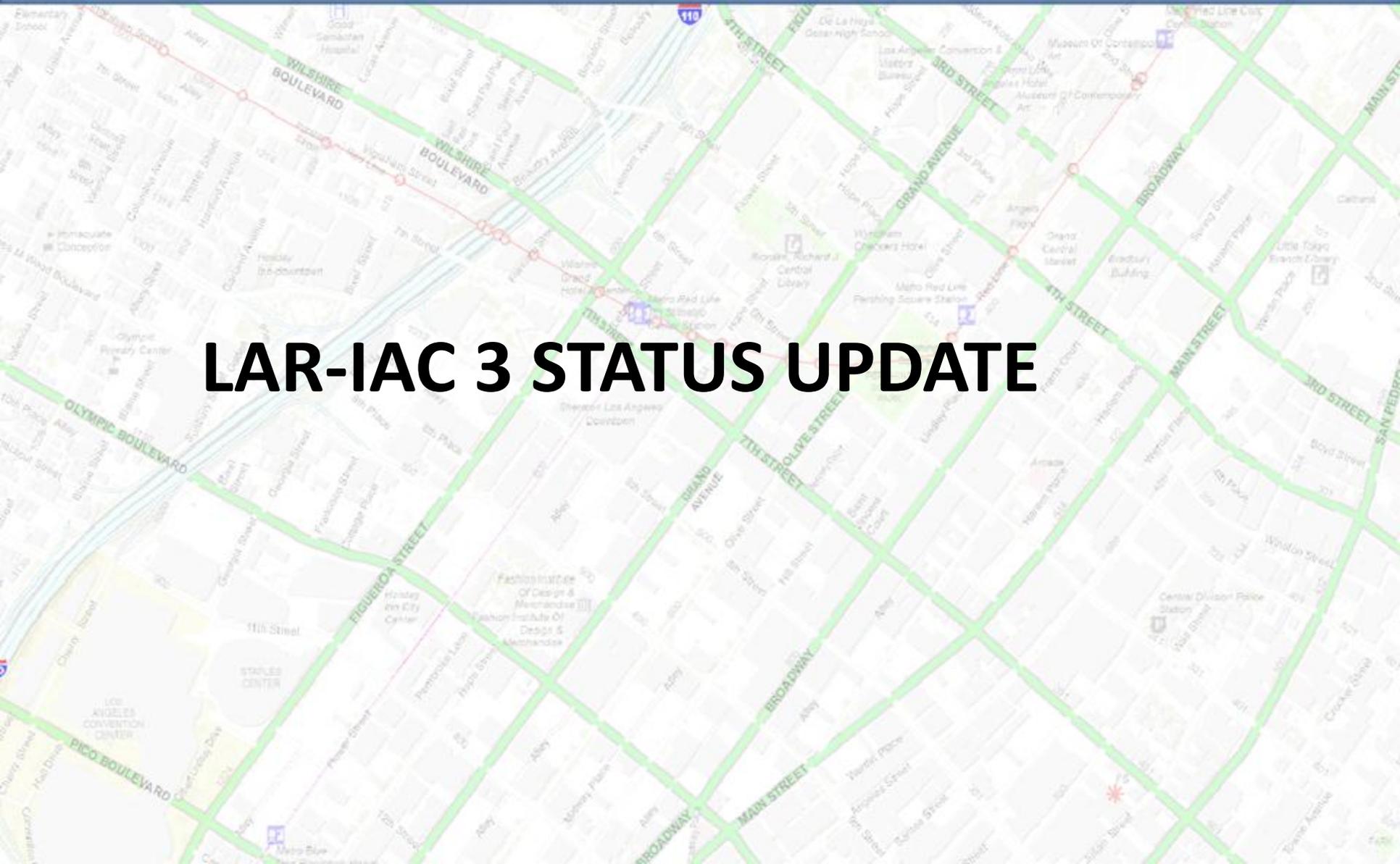
Created: 10/04/2007
 Location: Y:\Gis_ms4\temp_db\LAR-IAC_21
 Final_layers_PictometryGrid_Oct2007.mxd



Why LAR-IAC?

- Highest Resolution
- Unparalleled accuracy
- More data
- More tools
- Data Control
- Lower cost
- Shared base information

LAR-IAC 3 STATUS UPDATE



Current Participants

City of Agoura Hills	City of Los Angeles
City of Beverly Hills	City of Manhattan Beach
City of Burbank	City of Pasadena
City of Culver City	City of San Dimas
City of Downey	City of Santa Monica
City of Glendale	City of Torrance
City of Hermosa Beach	City of Whittier
City of Industry	LA County Sanitation Districts
City of La Canada Flintridge	Santa Catalina Island Conservancy
City of La Habra Heights	US Geological Survey
City of Lakewood	All LA County eGIS Departments

Current Finances

- Finances are in pretty good shape
- Total estimated costs are \$3 million
- Current commitments are \$2.6 million



Simplified Schedule

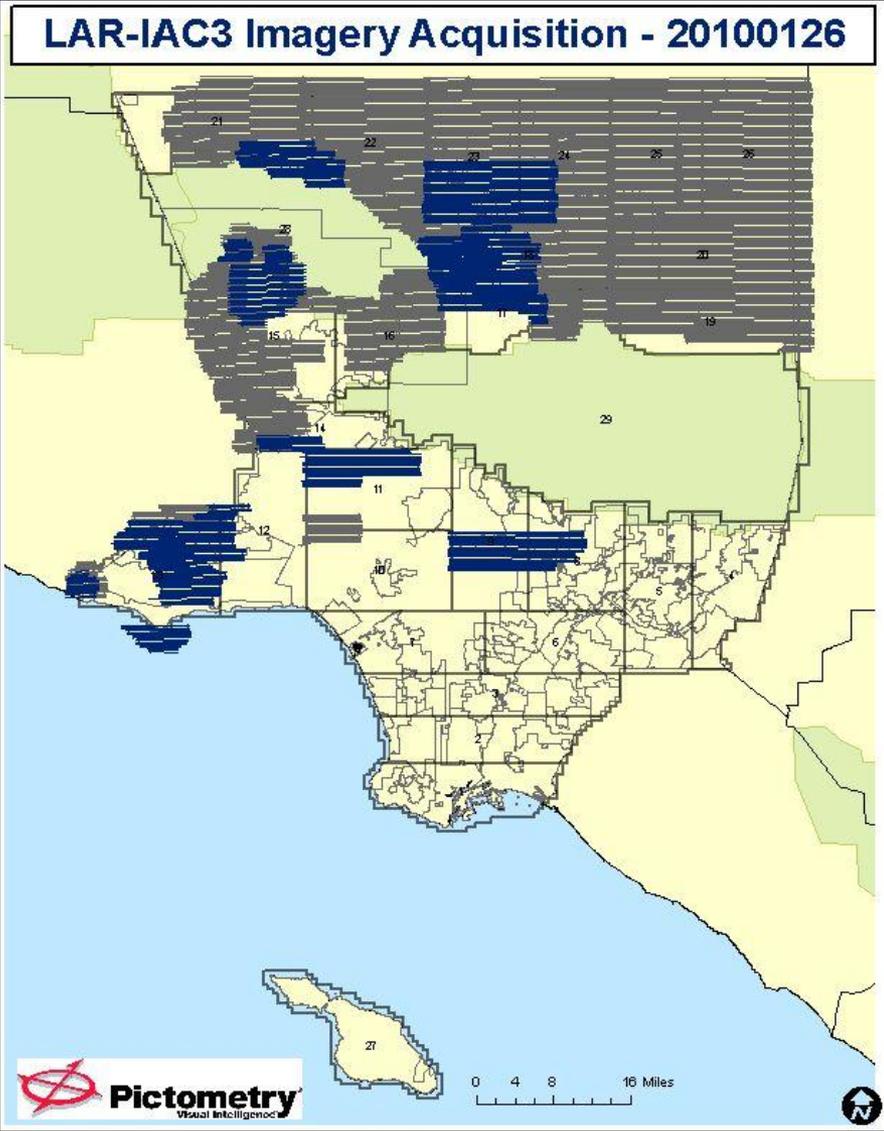
- September – TAG finalizes specifications
- December – set up bridge funding (CIO and CEO)
- December - complete contracts (all firms)
- **December - start flying**
- March 2011 - flying completed...start processing
- April – August - QC underway
- September – December 2011 delivery underway

Acquisition

- Planes arrived in LA County December 15th.
- Hampered initially by heavy rainfall.
- Rapid capture since then (40% complete in one month).



Current Acquisition Status



Changes

- Pictometry is surveying 400 new ground control points
- Large water bodies (rivers and ocean) will be color balanced and matched to ensure consistent water (look nice).
- Less Pictometry images.
- Medium compressed oblique delivery.

Collaboration

- Constant communication
 - Bi-weekly calls between Project Team (LA County, Pictometry, Sanborn, Dewberry)
 - Process is under QAQC from the beginning
 - Dewberry is comfortable with steps and outputs.
 - Anticipate no processing issues like in LAR-IAC 2.

Delivery Mechanisms

- External hard disk with aerial imagery files.
 - 4 Ortho imagery in various formats
 - GeoTIFF (raw) tiles
 - SDE export or File Geodatabase or ESRI image mosaic
 - JPEG2000 (compressed)
 - MrSID compressed (mosaics)
 - ECW compressed (mosaics)
 - 1 Oblique imagery dataset
 - Proprietary JPEG format (medium compression)
 - Updates to Elevation Data
 - GIS Shapefiles, AutoCAD files, Microstation files

Data Delivery Formats

Delivery Product

Format 1

Format 2

Format 3

Digital Terrain Model (Spot Updates)

ArcGIS shapefile -
points, 3D lines

AutoCAD (dwg) – points
, lines

Microstation (dgn)
– points , lines

Orthophoto (color) (4" and 1')

GeoTIFF & JPG2000

SDE Export/File
Geodatabase/ESRI
Image Mosaic

Mr. Sid & ECW
(mosaics)

Pictometry oblique imagery (4" and 1')

Medium Compressed
JPG format

Data Delivery (2)

- Hosted solution(s) for Oblique Imagery
 - **Pictometry Online** for oblique imagery
 - Pictometry Image Navigator for integration into your existing mapping sites.

What we need from you

- Provide us updated contact information
- Shapefiles of locations of major elevation change (grading, etc).
- Your preferred merged imagery format (pick one)
 - SDE Export (compressed)
 - File Geodatabase (compressed)
 - ESRI image mosaic (new in version 10.0)
- Decide if you want additional products (contract mechanism is in place)
- Money! Fund ½ by June 30 if you can, July (next FY) at the latest.

Participants Follow-Up

- Get us information for large grading projects since March 2008 – email project director
- Sign up for Pictometry online Training
- Provide us updated contact information
- Follow (adhere to) participant and licensing agreements
- Attend ongoing LAR-IAC3 Briefing Meetings, LAR-IAC User Group and ***Pictometry training sessions***
- Continue to spread the word (more participants equals less costs for all involved)

How do I Join?

- Letter of Intent
 - Informs the County that your agency intends to budget for LAR-IAC participation.
 - Non-binding
- Participant Agreement
 - Commits your agency to pay your share of LAR-IAC and “join the team”
 - Can make two payments over two fiscal years (one this year, one next)

Participant Agreement

- Three important areas:
 - Pages 1-5 are the agreement
 - Agreement between agency and County about costs.
 - Countersignatures on Page 5.
 - Attachment A lists the data products
 - Attachment A.1 allows you to contract for additional services
 - County allows “Optional Items” for participants.
 - 3D buildings, curb lines, etc.
 - A sub-contract between you and the vendor
 - Attachment B is between you and your contractor.
 - It protects you in case they use the information improperly.

Distribution and Sub-licensing

- Distribution
 - 4-inch orthos can be displayed on the Internet
 - Oblique imagery can be shown on the Internet
 - Note: measurement tools for internal use only
 - 1 foot orthos can be distributed to the Public
- Licensing
 - Participant Agreement
 - Sub-licensing
 - One simplified form to cover all data products for sub-contractors

Staying Up-To-Date With Project

- Meetings
 - Briefing Meetings (every other month)
 - Technical Advisory Group (as necessary)
 - User Group Meetings (quarterly)
- Documents
 - Participant Agreement
 - Status Reports

Contact Information

- **Project Director**

Mark Greninger, County GIO

mgreninger@cio.lacounty.gov (213) 253-5624

- **Outreach Manager**

Nick Franchino, GIS Manager, Regional Planning Dept.

nfranchino@planning.lacounty.gov (213) 893-0881

LAR-IAC Project Web Site

<http://planning.lacounty.gov/lariac>

LAR-IAC

Los Angeles Region Imagery Acquisition Consortium

Primary Navigation

- [LAR-IAC2 \(Re-fly\)](#)
- [Background Information](#)
- [Briefing / Meeting Schedule](#)
- [Contact Information](#)
- [Downloads](#)
- [Licensing Related](#)
- [Participants Related](#)
- [Sample Imagery & Data](#)
- [Pictometry Training Related](#)

LAR-IAC

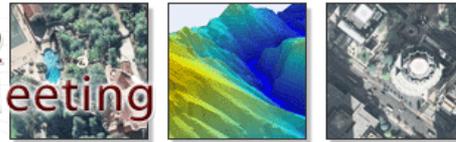
[Archive](#)

Other Links

- [LA County](#)
- [Regional Planning \(LA County\)](#)
- [SoCal GIS Forum](#)
- [Vendors](#)

LAR-IAC2 Kickoff Meeting

January 17, 2008



SAVE THE DATE!!

We will be kicking off the LAR-IAC2 project on Thursday, January 17, 2008 (time: 10 am - 12 noon, location: Health Services Headquarters). At this meeting, we will also briefly discuss the final status of the first project (including final reconciliation of costs and discussion of sub-licensing). Click [here](#) for more details.

LAR-IAC2 Update...More to Come

We are working hard to continue the momentum of the LAR-IAC and move to acquire updated imagery through [LAR-IAC2](#). We will be acquiring new 4" color ortho imagery and new 4" color oblique imagery and related products.

Project Overview

Welcome to the Los Angeles Region Imagery Acquisition Consortium (LAR-IAC) website. Here you will find documents relating to Los Angeles County's comprehensive project to obtain highly accurate digital imagery and related products. Please check this site periodically - we will be adding new material as it becomes available.

Other Items / Closing

- LAR-IAC 2 buildings part of ESRI community map.
- Thanks to Project Team!
 - DRP Staff
 - County Counsel
 - Technical Advisory Group (TAG)
 - Project Team (Pictometry, Sanborn, Dewberry)

Los Angeles Region – Imagery Acquisition Consortium (LAR-IAC3)

Questions/Comments?
(time permitting)



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Prepared by:
Los Angeles County

Vendor Presentations



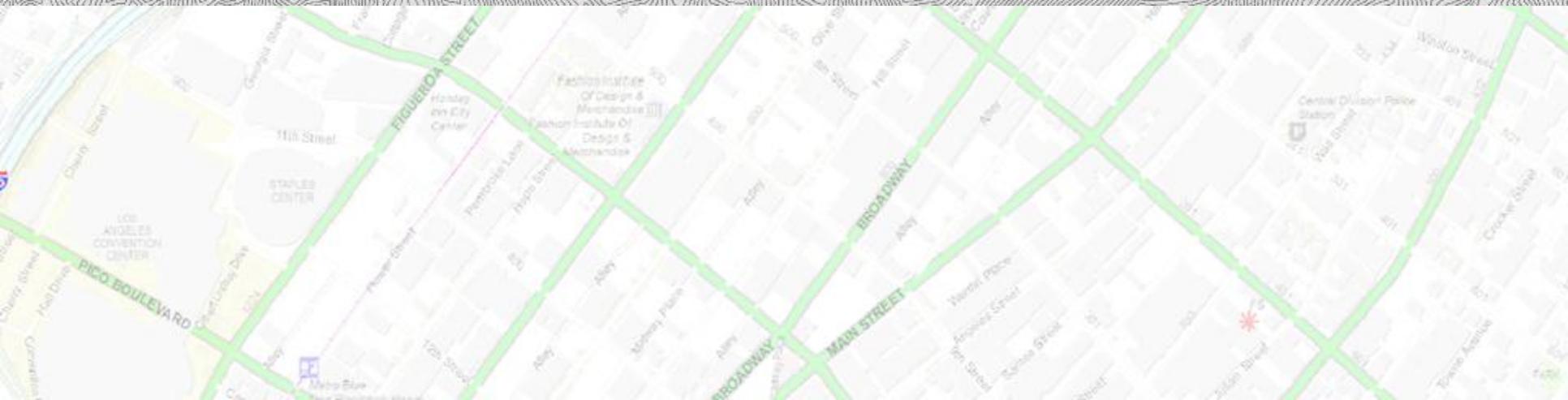
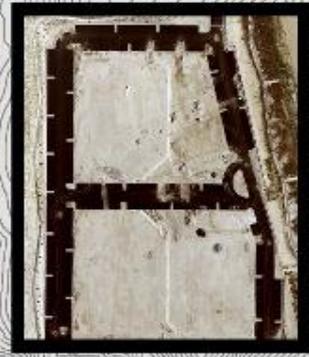
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- Presentation – **Pictometry** (Oblique imagery)
- Presentation – **Sanborn** (Ortho imagery)
- Presentation – **Dewberry** (Independent QA/QC)

Demonstrations

Los Angeles



Oblique Hosted Delivery Solutions

- Web-based viewer for Pictometry Data
 - Pictometry Online (<http://pol.pictometry.com>)
 - Access to all earlier oblique imagery.
 - Includes standard GIS data overlays
 - Parcels
 - Streets
 - Addresses
- Integration to existing sites via Image Navigator

Demonstration of Pictometry Online

Pictometry Online Login

https://pol.pictometry.com/en-us/login.php

GOS - Geospatial On... I-T Project Tracking ... LA County Intranet Service Center Repo... Suggested Sites Timecard Entry Other bookmarks

Pictometryonline
Intelligent Images

OAKWOOD DRIVE OAKWOOD DRIVE OAKWOOD DRIVE

pictometryonline | Login

Email Address:

Password:

Remember me

(Options above require you to be logged in)

[Change Password](#)

Tips for Users

Improve performance
Customers experiencing performance issues can turn off Street Labels for better performance. To toggle street layers on and off go to Preferences or click the "Toggle Street Labels" button.

Pictometry Online 1.8

New Pictometry Online Login Page
Pictometry Online has a new login page that contains access to a practice area, release highlights, release notes and training videos.

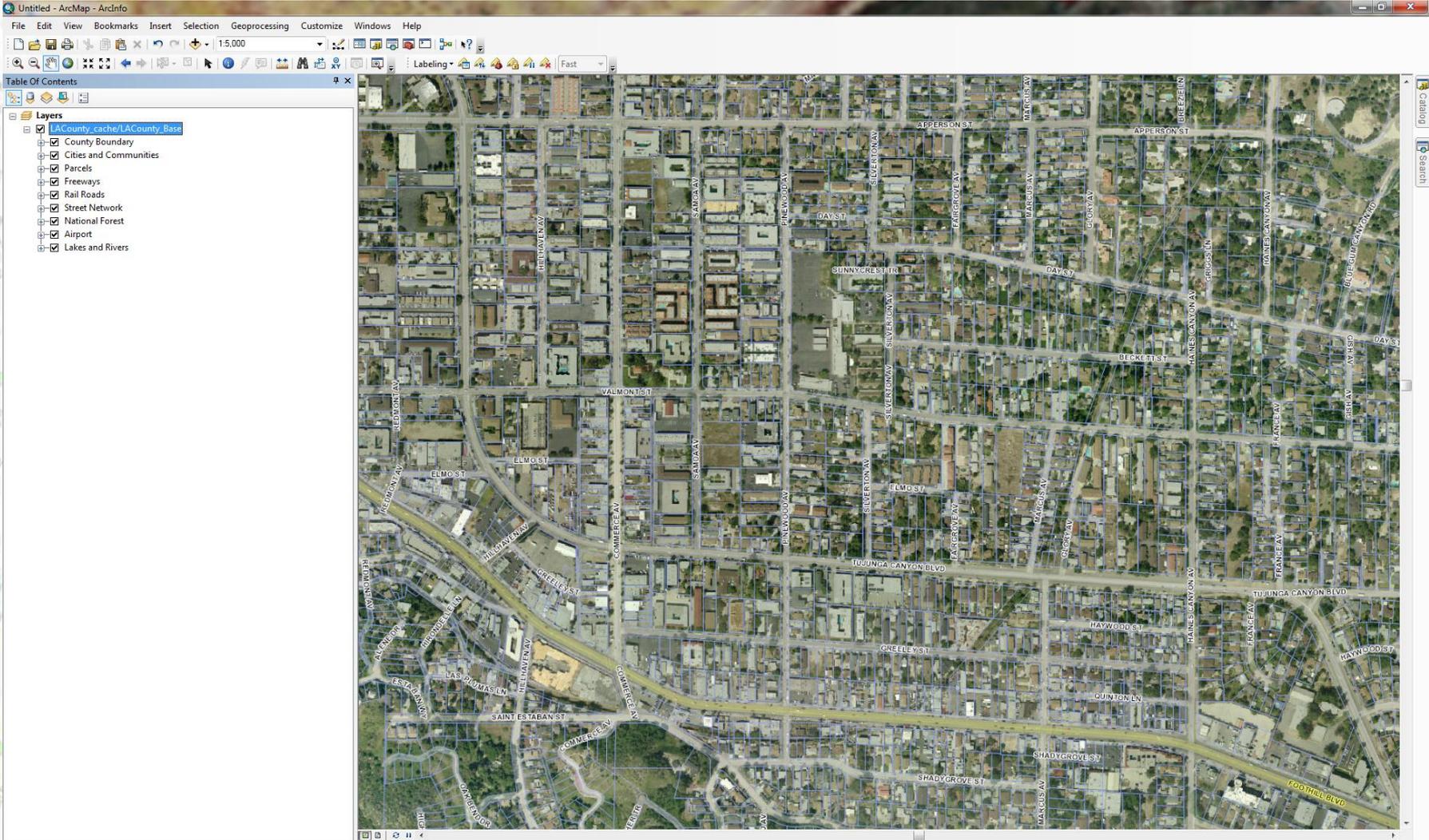
Practice area
Practice with access to a small geographic area with no impact on purchased hours or concurrent user accounts. Just click the "Practice Area" button on the

CONTACT ONE OF OUR SALES REPRESENTATIVES AT 888-771-9714 OR

Ortho Hosted Solutions

- Web Services from the County
- Using ESRI ArcGIS Server technology to provide maps as a service
 - Use directly in ArcMap
 - Use in your applications
 - Use in Google Earth
 - Use with Bing Maps
 - Use with Google Maps

ArcMap



GIS Applications

- Flex Viewer

LA County Dynamic Map Services Viewer - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://170.208.5.137/FlexViewer/LatitudeFlexSampleViewer/viewer-1.0b/viewer.html

Financial GIS Services LA County GIS Applications Geocortex GIS Management My Yahoo! LA County eGIS Demos ITS: Install FastCGI & ... CIO VPN

McAfee

LA County Dynamic Map Services Vie...

LA County Dynamic Map Services Viewer

Enter your search... Search

Street Base Aerial Terrain Base More...

Layer List

Layer Name	Visible
Operational Layers	<input checked="" type="checkbox"/>
Dynamic	<input checked="" type="checkbox"/>
Addresses	<input checked="" type="checkbox"/>
Zipcode Point Locations	<input type="checkbox"/>
Address Range	<input type="checkbox"/>
Zipcode (Parcel Accurate)	<input type="checkbox"/>
Basemaps and Grids	<input checked="" type="checkbox"/>
DPW Map Index	<input type="checkbox"/>
DPW House Numbering Index	<input type="checkbox"/>
Regional Planning Zoning Map Index	<input type="checkbox"/>
Regional Planning Zoning Maps	<input type="checkbox"/>
Fire Map Index	<input type="checkbox"/>
RRCC Map Index	<input type="checkbox"/>
RRCC Precinct Map Index	<input type="checkbox"/>
Thomas Brothers Page	<input type="checkbox"/>
Thomas Brothers Page and Grid	<input type="checkbox"/>
Township Range Section	<input type="checkbox"/>
USGS Quad Sheet	<input type="checkbox"/>
Assessor Map Book Page Index	<input type="checkbox"/>
Assessor Map Book Index	<input type="checkbox"/>
Administrative Boundaries	<input checked="" type="checkbox"/>
Adult Probation District	<input type="checkbox"/>
Area Codes	<input type="checkbox"/>
CDC Project Areas	<input type="checkbox"/>
DCFS Service Areas	<input type="checkbox"/>
DHS Trauma Catchment Basements	<input type="checkbox"/>
Regional Planning Community Standard Districts	<input type="checkbox"/>
Regional Planning Equestrian Districts	<input type="checkbox"/>
Regional Planning Land Use Policy (1980)	<input type="checkbox"/>
Regional Planning SubDivisions	<input type="checkbox"/>
Regional Planning Transit Oriented Districts	<input type="checkbox"/>
Regional Planning Zoned Districts	<input type="checkbox"/>
Regional Planning Unincorporated Zoning (Current)	<input type="checkbox"/>
Regional Planning Unincorporated Zoning (Future)	<input type="checkbox"/>
Health Districts	<input type="checkbox"/>
Juvenile Probation District	<input type="checkbox"/>
Law Enforcement Reporting Districts	<input type="checkbox"/>
Law Enforcement Station Boundaries	<input type="checkbox"/>
Library Fee Areas	<input type="checkbox"/>

Filter Layers: Clear

40 km
20 mi

Bing/Google Maps

